HAUNTED JUKEBOX

service manual

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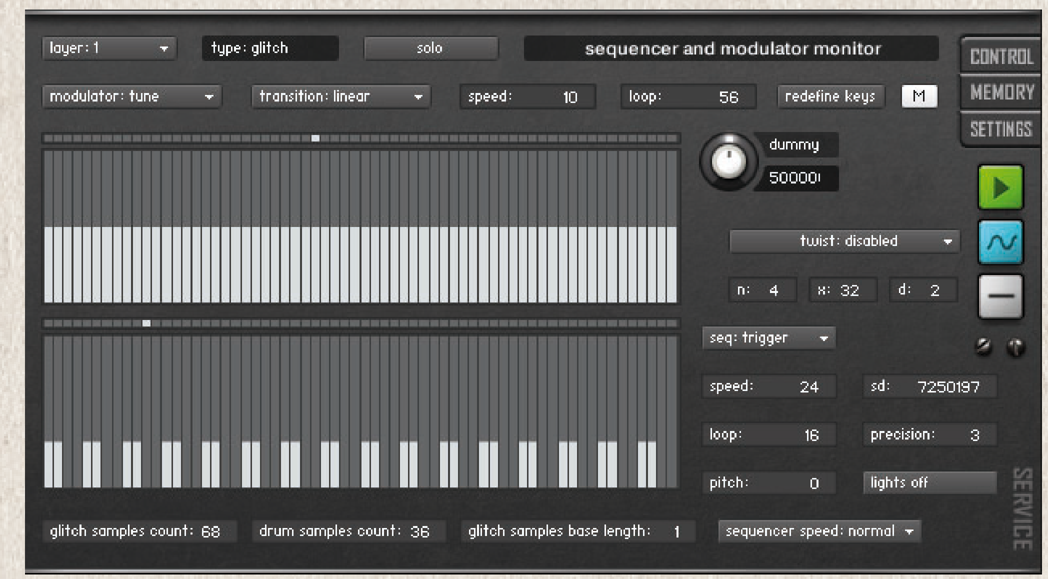
In signature edition of Haunted Jukebox there are unlocked service menus. They can be used to fine-tune the instrument and create different setups. Service menus access buttons are located below 'fade-out' button.

Left service button will bring up sequence monitor and engine setup. You can examine sequencer and modulators program. Sequences and their properties can be edited, though the edits will not be saved in by memory function (there's no way to recall edited program). Sequences state will be saved with patch / DAW project. Editing sequences is available mainly for testing purpose and it's not quite handy. Upper sequence table is modulator program, lower table is note sequence. Above the tables there are controls for changing layer, changing modulation sequence, transition, speed and loop size. You can use **solo** button to audition selected layer only. **Speed** value is division of base speed, which is dependant on host tempo. Low value speeds are faster, speed of two is half of base speed, speed of 3 is one third of base speed and so on. **Loop** is how much of the sequence is actually being used. Selected modulator activity is being mimicked by '**dummy**' knob, so you can observe selected modulator activity.

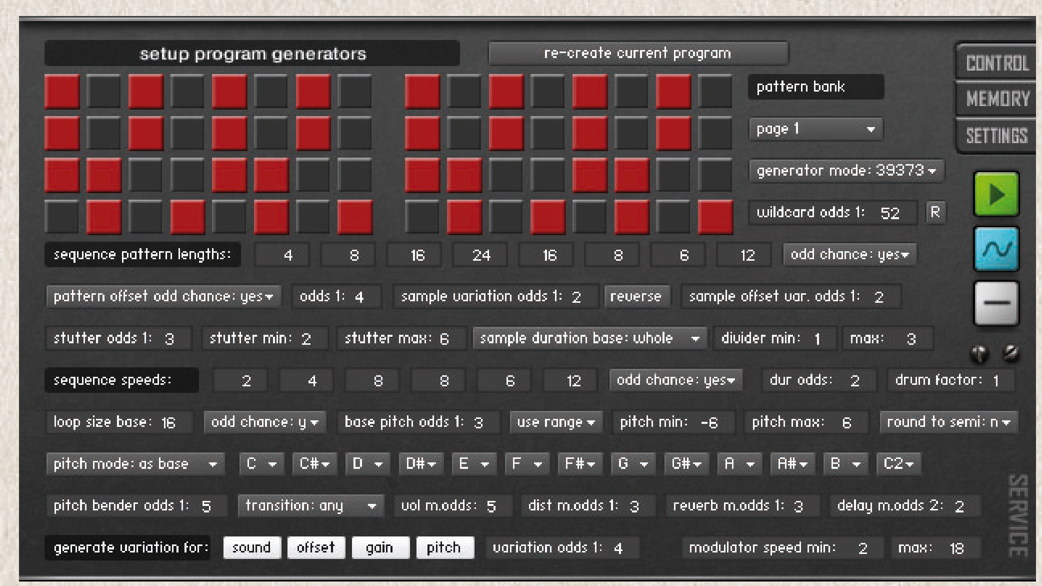
Note sequencer is using three tables. **Trigger** table contains note numbers to play, if set to zero, no sound will be triggered, so it also defines the rhythm pattern. **Duration** table is where note duration data is held. **Offset** value has different function depending on layer type. For glitch layers it points to sample playback start offset. For drum layers it will select different note from the sample group. Samples are grouped using velocity layers – for drum layers velocity information is used for selecting different sample, rather than modifying sample volume. Note sequencer is using speed and loop value as modulation sequencer. **Pitch** setting of note sequence is the base pitch modification applied to sample (sample can be then re-tuned by variation settings and modulator).

There is base **sequencer speed** setting available for note sequencer, you can set it to double, normal or half speed. It will change the speed of all sequences and it's equivalent to changing the host tempo.





sequence monitor and engine setup



program generator setup

Engine parameters

Sd (seed), this is not editable parameter, it displays current pattern number, decoded to decimal notation.

Precision is base modulation engine parameter. It sets the frequency for modulation, that is how smooth the modulation curve is. Higher precision, will produce smoother transitions and will consume more CPU.

Lights off switch disables flashing pads effect, (pattern buttons changing colors when sequencer is running).

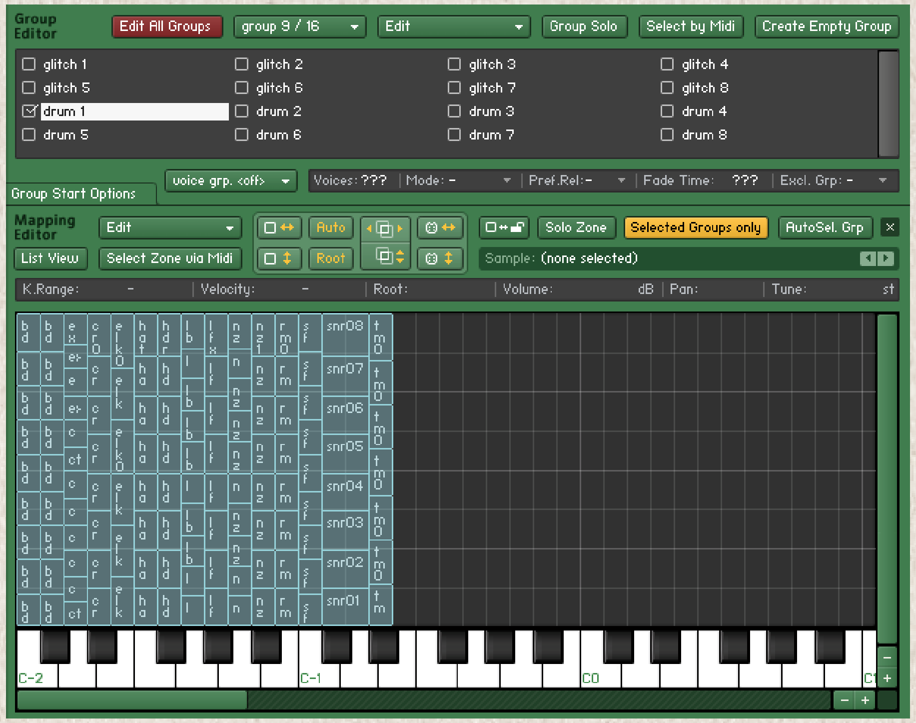
M switch is memory lock, when disabled, the machine will read memory banks contents from files saved in data folder (which can be saved via 'file' menu), else it will read memory data stored in patch/project. Memory lock will be enabled whenever you change memory contents, you can unlock it manually, then the memory will be overwritten with data saved to file, on machine startup.

Twist function

When enabled, **twist** function will automatically randomize performance settings (flavor, variation or warp) in defined time frame. 'n' is minimum period between auto parameter change in bars, 'x' is maximum period and 'd' is duration, that is how long keep the setting changed before returning to previous value.

Custom setup

Glitch samples count, **drum samples count** and **glitch base length** are values used for soundset setup. As you can see each layer is using two groups, so you have 8 glitch groups and then 8 drum groups. You can paste any sample zones into groups to create a custom setup (always start from first note).



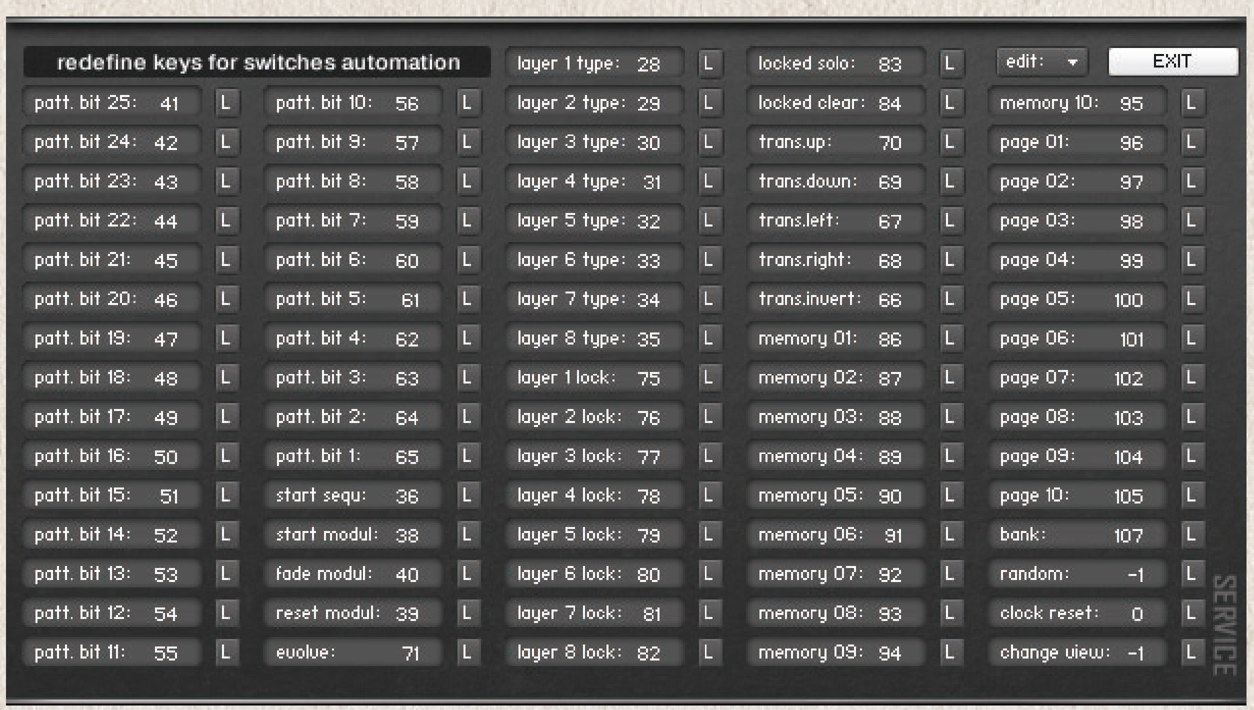
In example above you have samples in drum layer, assigned to 16 different keys – to make use of this setup, you need to set **drum samples count** to 16. Drum layers use velocity data to store different samples of the same group, like e.g. snare sounds, the group to play will be selected using trigger table and the sound will be selected from offset table.

Glitch layers don't use velocity, every sample will be triggered using the same velocity value. Glitch samples will use offset table to select sample start point. Use **glitch sample base length** to define range of sample start in seconds, plus approximately 7 seconds for modifiers. If you for example know that all glitch samples have at least 20 second in length, set base length to 20-7 = 13. Note that after pasting the glitch samples you need to edit 'S.Mod' setting in Kontakt for each sample. Alternatively switch all glitch groups from 'DFD' to 'sampler'.

Redefine keys

Redefine keys button will take you to key automation setup. You can define which notes to use for different functions, to match your midi controller. Each function has midi learn option – '**L**' button next to a value. You can save whole configuration to file using **edit** menu. Changes will be visualized on Kontakt's virtual keyboard.

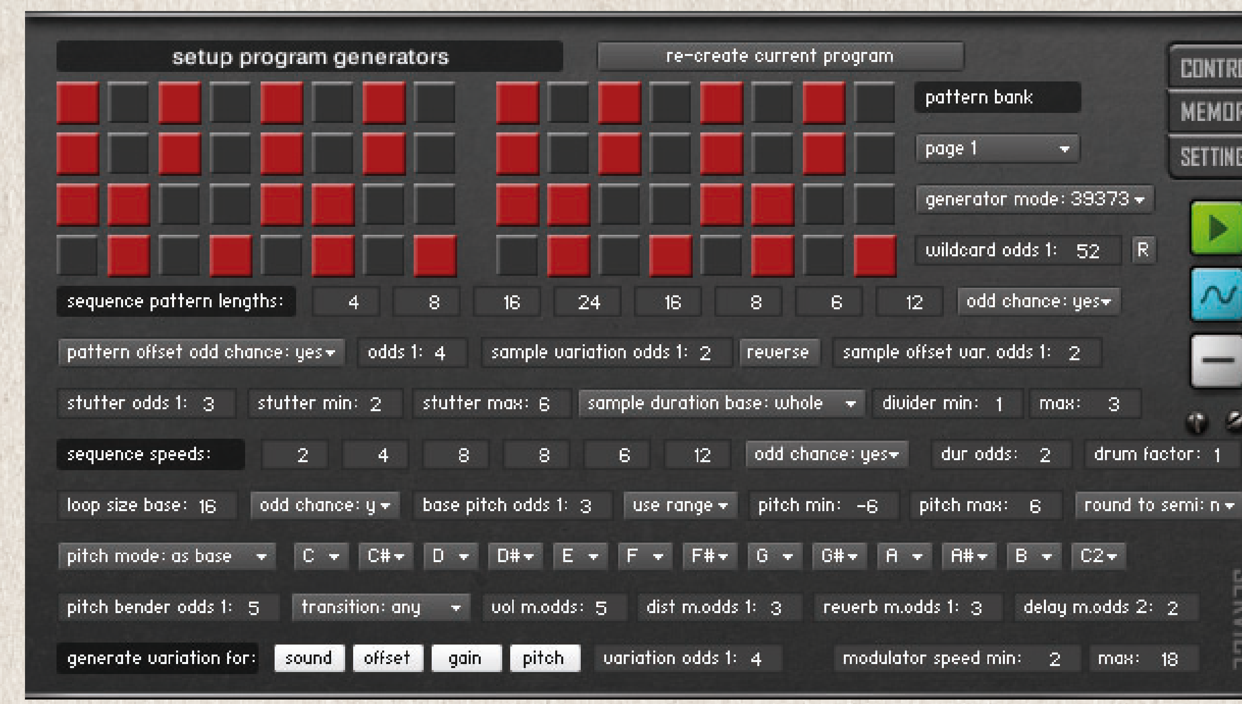
There are two special keyboard only functions. **Change view** will simply toggle view through panel tabs – control, memory, settings. **Clock reset** will restart all sequencers, the clock is restarted on transport start and synchronised with transport. Clock reset function can be used to restart sequencer manually or to synchronize multiple instances in standalone Kontakt.



Configuring program generator

The other service panel is where you can fine-tune program generator. You can change parameters used to create sequences for notes sequencer and modulators. Note that you need to generate new program to audition the changes. You can use **re-create current program** button to re-write program using current pattern and updated generator settings.

You can select different generator algorithm modes, using **generator mode** menu. This setting will have impact on all calculated events, sequences, variation, even pattern names.



The machine is using pre-programmed rhythm **pattern bank** to create sequences. It derives read position, sequence loop length and other values from pattern number and then reads pattern portion from bank. The bank size is 32x 16 step sequences and is editable. Navigate pattern view with **page** menu and re-program sequences the way you like, it will have impact on all generated sequences. **Wildcard odds** setting sets odds for creating a 'random' note, that is reversing a step in rhythm sequence. Set it to '0' to disable wildcard notes. Setting this value to 1, will overwrite all sequences with 'random' rhythm.

When creating a note sequence the machine will use one of two modes, create sequence of the same sound/note or create a sequence of different notes. Wildcard '**R**' random button has impact on wildcard notes behavior, when the button is off, wildcard notes in non-varied sequences will be the same value as other notes in sequence, only the rhythm pattern will be broken. Enabling '**R**' makes wildcard note always a 'random' sound (not really random, you just let the machine pick any value, which is calculated from seed number).

Sequence pattern length is how much of the pattern bank to read for creating a sequence. For example for value of 4 the machine will read 4 steps from pattern bank and loop the rhythm all through the generated sequence. The **length** value will be picked from table of 8 values, which can be edited. Furthermore there is odd chance setting, if enables there is chance of picking arbitrary number for the pattern length.

Pattern offset odd chance – Chance for picking any point in pattern bank (normally it will be a multiple of 16), as the start point for reading the pattern. This way more varied rhythms can be created. You can define the odds using the next setting '**odds**'.

Sample variation odds – Odds for creating a repeating sound sequence. Normally a sequence will consist of different sounds, repeating sequence will use the same sound all over the layer's sequence (the sound can be than varied by sample offset sequence). Use '**reverse**' button to reverse the odds, that is, create repeating sequences more often than varied ones.

Sample offset var odds – Odds for creating varied offset sequence (offset sets sample start point for glitch layers and sample variation within a group for drum layers).

Stutter odds – Glitch layers have a stutter option. If the sequence is picked to stutter, each step read from pattern bank will be multiplied. For example, 1,0,1,0 will be read as 1,1,0,0,1,1,0,0. Stutter min and max settings define possible stutter range (how many time repeat each step).

Sample duration base – Base duration for sample playback, will then be modified by divider value from defined range (**divider min** and **max**). For example: duration base quarter and divide range 1-2 will generate quarter notes or eight notes. Below there are two more modifiers for note duration. '**dur odds**' – Odds for generating sequence with varied sample playback duration (from defined range). If not triggered, all notes in sequence will have the same duration. '**drum factor**' is duration multiplier for drum layers, use it, if you like glitch layers to play short notes and drum layers to play longer notes. Note playback duration is being scaled with stretch knob when sequencer is playing notes.

Sequence speeds – You can edit possible values to select for sequence playback speed. Each layer note sequence can run at different speed, similarly for modulator sequences each sequence can run at different speed. Speed of 1 is the fastest base speed, 2 is half speed and so on. At normal sequence speed, base speed is one step per 1/32 note. **Odd chance** setting enables machine to pick arbitrary speed for some layers.

Loop size base – Sequence loop will be set either to base size or multiplication of it. Loop size is what portion of sequence use for playback. **Odd chance** is option for machine to pick arbitrary loop value for some layers.

Base pitch odds – every note sequence has a base pitch, that is initial tuning of the sample. Pitch odds setting is odds for creating a base tuning, instead of leaving sample pitch intact. **Pitch min** and **max** settings define range of possible tuning in semitones. **Round to semitone** is tuning mode, if enabled, changes will be always rounded to semitone, this applies to base pitch, pitch modulator and variation changes.

Besides regular pitching mode ('use range'), there is special experimental mode, which can be used to create melodies within defined scale. 'Use table' activates the alternative mode, use it with regular pitched instrument samples inserted in glitch layers – remember to enable 'tracking' on those groups and make sure note numbers match sample pitch. In this mode the machine will play regular melody using note numbers rather than pitching individual samples. To tune the scale edit note values in the table below, last note setting is not used in this function.

Modulator program generator setup

Remaining settings apply to modulation program generator.

Pitch mode sets pitch modulator program generator. Arbitrary setting will generate any pitch from range -12 / +12 semintones. If 'round to semitones' if off, any value can be picked, including fractions of semitone. 'As base' mode will use pitch range defined for base tune. 'By table' mode will use values from the following editable pitch table. It can be used to tune samples to a scale – assuming all samples have the same pitch and base pitch range is set to zero.

Pitch bender odds – odds for creating pitch modulation. If not selected, all pitches will be set to 'no change' effectively disabling pitch modulator for given layer.

Transition – transition type for pitch modulation. 'Any' will let machine pick any available transition. 'Square' will change pitch instantly, like when playing different notes. 'Sine' transition is like applying sine LFO to pitch, it generates pitch sweeps.

Vol. m. odds – odds for volume modulations. Applies to layer volume modulator. 2 will disable generation, only default values will be written, 3-4 will allow different static settings (makes layer more quiet or louder, but not changing volume in time), 5 will allow varied program at 1:5 odds, more than 5 will add more chances for varied program.

Dist. m. odds – odds for creating distortion amount modulations. This modulator will enable layer distortion and animate it's amount.

Reverb m. odds and delay m. odds – odds for animating send levels to reverb and delay effects.

Modulator speed min and max define speed range to set to modulators. Each modulator will be set to a different speed picked from defined range. Slower speeds (more than 16 setting) won't use parabola based transition (sine, parabolic, inversed parabolic).

Variation setup

Last row of settings apply to variation program generator. Each pattern generates its own variation program. Variation can then be selected with variation knob. Variation can change following settings: 'sound' – select different sample / sample group; 'offset' – select different sample start position / different sample from a group; 'gain' – select different layer volume; 'pitch' – select different base pitch for layer. You can disable any of variation modification. Disabling all of them will disable whole variation functionality. Variation odds defines odds for creating each type of change per variation.

All setup values will be saved with patch or DAW project.

This concludes the manual. Have fun.

SzcZ